

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of Hans-Dieter Thieme

Serial No.

Examiner:

Filing Date:

Group Art Unit:

For: Tool Arrangement for Binding an Object, in Particular a Cable
Harness

Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Prior to examination and calculation of the filing fee for the above-identified application, please enter the following amendments:

In the Specification:

After the title, insert —BACKGROUND OF THE INVENTION—

Page 2, lines 8-9, delete the entire sentence.

Page 2, before line 10, insert —SUMMARY OF THE INVENTION—

Page 4, before the first sentence, insert —BRIEF DESCRIPTION OF THE
DRAWING—

Page 4, before line 14, insert —DETAILED DESCRIPTION OF THE
PREFERRED EMBODIMENT—

In the Claims:

Please amend claims 1 through 8 per the marked up copy enclosed
herewith.

Please add new claims 9-20 as follows:

9. The arrangement as claimed in claim 2, wherein, in addition to a part which senses the band and/or the detent, the sensor has a part which senses the lock.
10. The arrangement as claimed in claim 3, wherein the direction of the sensing movement of the sensor essentially coincides with the direction in which the lock is to be introduced into the lock mount.
11. The arrangement as claimed in claim 4, wherein the sensor is of multi-step design.
12. The arrangement as claimed in claim 3, wherein the lock has a through-passage for the sensor.
13. The arrangement as claimed in claim 4, wherein the lock has a through-passage for the sensor.
14. The arrangement as claimed in claim 5, wherein the lock has a through-passage for the sensor.
15. The arrangement as claimed in claim 3, wherein the lock mount has fixing clips for the lock.

16. The arrangement as claimed in claim 4, wherein the lock mount has fixing clips for the lock.

17. The arrangement as claimed in claim 5, wherein the lock mount has fixing clips for the lock.

18. The arrangement as claimed in claim 6, wherein the lock mount has fixing clips for the lock.

19. The arrangement as claimed in claim 2, wherein a blade provided for cutting off one band end serves as a stop for the other band end.

20. The arrangement as claimed in claim 3, wherein a blade provided for cutting off one band end serves as a stop for the other band end.

In the Abstract:

Change —Abstract— to —ABSTRACT OF THE DISCLOSURE—

***A CLEAN COPY OF THE AMENDED AND ADDED CLAIMS AND THE
AMENDED PARAGRAPH IS ENCLOSED HEREWITH.***

REMARKS

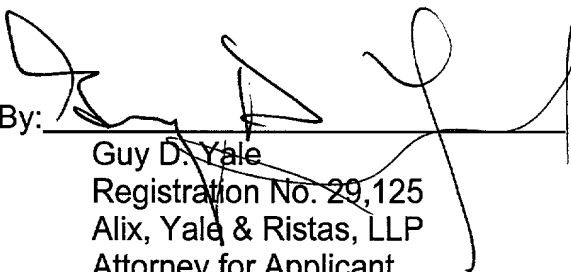
Applicant has amended the application to conform same to U.S. patent practice. Numeric identifiers have been deleted from the claims. The claims have been amended to delete multiple dependent claims.

Upon entry of the amendment claims 1 through 20 will be pending for consideration.

Applicant requests that the amendments be entered prior to examination of the application and calculation of the filing fee.

Respectfully Submitted,

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CLEAN COPY OF AMENDED CLAIMS

1. A tool arrangement for binding an object, in particular a cable harness, by means of a band, the ends of which are guided through a lock, for which there is provided in the tool a lock mount which is provided with a sensor for establishing the presence of a lock, said sensor assuming a first sensing position in the absence of a lock and a second sensing position in the presence of a lock, wherein the sensor assumes a third sensing position when the lock contains a band.
2. The arrangement as claimed in claim 1, wherein the lock contains at least one detent which interacts with the band, is deflected out of a rest position in the presence of the band and is sensed by the sensor.
3. The arrangement as claimed in claim 1, wherein, in addition to a part which senses the band and/or the detent, the sensor has a part which senses the lock.
4. The arrangement as claimed in claim 2, wherein the direction of the sensing movement of the sensor essentially coincides with the direction in which the lock is to be introduced into the lock mount.
5. The arrangement as claimed in claim 3, wherein the sensor is of multi-step design.

6. The arrangement as claimed in claim 1, wherein the lock has a through-passage for the sensor.

7. The arrangement as claimed in claim 2, wherein the lock mount has fixing clips for the lock.

8. The arrangement as claimed in claim 1, wherein a blade provided for cutting off one band end serves as a stop for the other band end.

9. The arrangement as claimed in claim 2, wherein, in addition to a part which senses the band and/or the detent, the sensor has a part which senses the lock.

10. The arrangement as claimed in claim 3, wherein the direction of the sensing movement of the sensor essentially coincides with the direction in which the lock is to be introduced into the lock mount.

11. The arrangement as claimed in claim 4, wherein the sensor is of multi-step design.

12. The arrangement as claimed in claim 3, wherein the lock has a through-passage for the sensor.

13. The arrangement as claimed in claim 4, wherein the lock has a through-passage for the sensor.

14. The arrangement as claimed in claim 5, wherein the lock has a through-passage for the sensor.

15. The arrangement as claimed in claim 3, wherein the lock mount has fixing clips for the lock.

16. The arrangement as claimed in claim 4, wherein the lock mount has fixing clips for the lock.

17. The arrangement as claimed in claim 5, wherein the lock mount has fixing clips for the lock.

18. The arrangement as claimed in claim 6, wherein the lock mount has fixing clips for the lock.

19. The arrangement as claimed in claim 2, wherein a blade provided for cutting off one band end serves as a stop for the other band end.

20. The arrangement as claimed in claim 3, wherein a blade provided for cutting off one band end serves as a stop for the other band end.

AMENDED PARAGRAPH, PAGE 1-2

If it is desired to establish both that a lock is present and that the band end has passed in, it would be necessary, in a development of this prior art, to provide two sensors, of which one checks the presence of the lock and the other checks the presence of the band. This involves high outlay, especially since a large number of different functional parts have to be accommodated in the vicinity of the lock mount. Space is thus tight and parts may interfere with one another. Provision is accordingly made for a sensor which is designed for establishing the presence of a lock also to sense the presence of the band. For this purpose, in addition to a first sensing position, which it assumes when there is no lock in the lock mount, and a second sensing position, which is assigned to the presence of a lock, it has a third sensing position, which corresponds to the presence of a band.

Claims

1. A tool arrangement for binding an object, in particular a cable harness, by means of a band [(8)] ,
5 the ends of which are guided through a lock [(6)] , for which there is provided in the tool a lock mount [(2)] which is provided with a sensor [(15)] for establishing the presence of a lock [(6)] , said sensor assuming a first sensing position in the absence of a lock [(6)] and a second sensing position in the presence of a lock [(6)] , wherein the sensor [(15)] assumes a third sensing position when the lock [(6)] contains a band [(12)] .
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- 15 2. The arrangement as claimed in claim 1, wherein the lock [(6)] contains at least one detent [(9)] which interacts with the band [(12)] , is deflected out of a rest position in the presence of the band [(12)] and is sensed by the sensor [(15)] .
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3. The arrangement as claimed in claim 1 [or 2] , wherein, in addition to a part [(30)] which senses the band [(12)] and/or the detent [(9)] , the sensor [(15)] has a part [(31)] which senses the lock [(6)] .
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4. The arrangement as claimed in claim 2 [or 3] wherein the direction of the sensing movement of the sensor [(15)] essentially coincides with the direction in which the lock [(6)] is to be introduced into the lock mount [(2)] .
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5. The arrangement as claimed in claim 3 [or 4],
wherein the sensor [(15)] is of multi-step design.
6. The arrangement as claimed in ^{claim 1}one of claims 2 to
5, wherein the lock [(6)] has a through-passage [(28)]
for the sensor [(15)].
7. The arrangement as claimed in ^{claim 2}one of claims 2 to
6, wherein the lock mount [(2)] has fixing clips [(5)]
for the lock [(6)].
8. The arrangement as claimed in ^{claim 1}one of claims 1 to
6, wherein a blade [(35)] provided for cutting off
one band end [(8)] serves as a stop for the other
band end [(12)].